Section IV:

AMENDMENT UNDER 37 CFR §1.121

REMARKS

Request for Telephone Interview

Applicant's Agent, Robert H. Frantz, requests a telephone interview with the Examiner upon receipt and review of the present reply and amendment in order to discuss the changes made herein, answer any questions the Examiner may have, and to consider any modifications the Examiner may suggest. Examiner is requested to call Applicant's Agent at 405-812-5613 to indicate a time a date at which the Examiner would be available for the interview.

Objections to the Specification

In the Office Action, the Examiner objected to the Cross-Reference and Incorporation paragraphs in the specification for missing serial numbers of related and incorporated patent applications. The present amendment adds the serial number and filing date of the related and incorporated application as they have now been assigned by the USPTO.

Rejections under 35 U.S.C. §102(e)

In the Office Action, the examiner has rejected claims 1 - 13 under 35 U.S.C. §102(e) for lack of novelty as being anticipated by U.S. Patent Number 6,085,226 to Horvitz (hereinafter "Horvitz").

With respect to the rejections of independent Claims 1, 5, and 9, and the rejections of Claims 2, 6, and 10 which depend from these independent claims, Horvitz discloses downloading a page or a portion of a page which may be of interest to the user:

> ... those pages or portions of pages that are likely to be prefetched given, ... (Abstract)

> ...the browser could prefetch and cache just the tops, e.g., a first few inches, or predefined screenfuls of successive web pages... (Col 37, lines 51 - 53)

Horvitz' system uses a complicated "model" to determine if a page might be of interest to the user, including terms of interest to the user:

> ... The user models can rely on, e.g., a function(s) of current page structure and content, recent sequences of pages downloaded to the user, descriptions of long-term or short-term interests of the user, ... (Col. 4, lines 22 - 23)

However, Horvitz' system makes no attempt to determine if any pages which are linked 2 or more links (e.g. 2 or more "hops") from the current page might be interesting to the user. In fact, Horvitz specifically only downloads and scans pages and portions of pages which are a single link from the current page:

> ...by forecasting the behavior of the user under uncertainty with user models, that employ rules, functions, data analysis, or combinations thereof to provide estimates of probabilities (likelihood) that the user will access, in the future, each of those particular pages for viewing, e.g., **transition to that page from a current page**, or transition to that page later, i.e. in a current session or within a given time horizon of that session. ... (Col. 4, lines 13 - 20, emphasis added)

> ... As successive web pages are selected by the user and displayed, the **immediately prior set of files** for prefetched pages can be over-written by files for a current set of prefetched pages. ... (Col. 4, lines 43 - 44, emphasis added)

> ...a browser, through use of, e.g., a probabilistic user model, can compare rate of refinement in utility provided by a current information download, i.e. a **web page currently being fetched**, and compare that rate against a discounted flux-product associated with a web page to which the user is likely to transition in the future (i.e. a "future" web page). Whenever the discounted flux-product of the **latter page** exceeds the rate of refinement with time then being provided by continuing to download the **former page**, computational or networking

> resources are deallocated from the current information download and allocated (applied) to prefetching and storing the future web page. (Col. 5, lines 4 - 15, emphasis added)

From these portions of Horvitz, we believe that their system only downloads pages which are one link from the current page, or "1-hop" as we have described in our disclosure. Our invention, however, will continue to search deeper than 1-hop from the present page to find pages of potential interest which are 2, 3 or more links (e.g. 2, 3 or more hops) from the current page. We have defined this as an "N-hop link space" within which our search is performed. This not disclosed by Horvitz.

We have amended claims 1, 5 and 9 to specify this step, element or limitation which is not taught by Horvitz, and applicant therefore requests withdrawal of the rejection and allowance of these claims.

With respect to rejections of Claims 3, 7, and 12, Horvitz discloses considering whether or not an existing link in a current page might be of interest based on the formatting of the link such is whether or not it is a certain color, in a certain position on the page, or already highlighted, referring to the "default" formatting codes of the text which is already present in the currently displayed page:

...Furthermore, general models of transition behavior can be built by experts or from data gathered in empirical studies with human subjects about the behavior of users **as a function of the general structure of pages**, including such considerations as the **position, highlighting, and graphical nature of links**, and real-time evidence about such acute activity as user actions, such as, e.g., a pattern of access of links, mouse cursor motion, and page scrolling and dwelling. (Col. 24, lines 56 - 65, emphasis added)

... As will be discussed in detail below, a probabilistic user model can take into account any of a wide variety of factors, not just a conditional probability of page access given a current page being rendered. Generally speaking, these factors can include, e.g.: (a) **structure and layout of information**, textual and graphics, in a rendered page (including, e.g.: **a manner through which links are highlighted or displayed, such as their position and graphic associations/attachments**, and particular words displayed in the links themselves; or, particular words either by content or appearance thereof in a title of a page or in a summary thereof in a rendered page);... (Col 38, lines 5 - 16, emphasis added)

...Each link of each such page can be tagged in terms of a **class associated with that link, e.g.: a highlighted word or a title**; a link appearing in a title graphic; **a link highlighted by an icon**; position of a link ... (Col. 39, lines 36 - 39, emphasis added)

From these portions of Horvitz, it is clear that their user model takes into account whether or not the *existing link* is already highlighted to determine if the user may be of interest in it. This highlighting would be part of the existing page code, or what we would call the "default" appearance definition of the text (e.g. bold, underline, color, reverse video, etc.).

Our system, however, takes the step to highlight the existing link by modifying the default appearance of the link from its default appearance as set by the present web document. This is a positive step of function of our invention, not just considering the pre-defined appearance of the hyperlinked text, but actually changing its appearance in order to make it more noticeable to the user. This step, element or limitation is not taught by Horvitz, and applicant therefore requests withdrawal of the rejections of and allowance of Claims 3, 7, and 12.

With respect to the rejections of Claims 4, 8 and 13, Horvitz discloses a web browser with typical "favorites" or "bookmarks", which the Examiner has equated to our "fast links". Favorites and bookmarks are well-known in browsers, the former being a term used by the Microsoft Internet Explorer web browser, and the latter being a term used by Netscape's Navigator web browser program. Popular web term definitions are:

favorite: Another name for a bookmark. (Source: www.NetLingo.com)

bookmark: A direct **link to an often visited site**, saved in your browser for easy access. Bookmarks help you keep track of Web sites you frequently visit. They're considered by many to be the best thing about surfing the Web. By bookmarking a Web site **while you visit it**, you can easily return to it later with a simple mouse click, rather than having to remember or type a very long or sometimes cryptic URL. The World Wide Web can be seen as a huge library of information, and finding your way around can be confusing at first. Bookmarks are one way of personalizing the Web experience by enabling you to quickly return to areas of the Web that interest you. To learn how to bookmark a Web site, visit NetLingo.com and click on the link that says, "How to Bookmark NetLingo." (Source: www.NetLingo.com)

The terms are interchangeable in the art, and Horvitz has not provided a new or different definition for either term. By definition, a bookmark is a page that the user has already explicitly visited and determined it is of interest.

We believe that Horvitz is simply describing other functions commonly available in web browsers, and is not describing a function provided by his invention because it is counter to the object of his invention: predicting what pages a user may transition to in the future. There is no disclosure in Horvitz describing how such a "favorite" or bookmark is recorded or created, presumably because it is only part of the environment of his invention, not a function or result of his invention.

Our invention, however, creates "fast links", not bookmarks or favorites, based on the predicted interest level of the user of a page *not yet necessarily visited* which is linked within N-hops to the current page. Our claims specify the active step, or an element which actively creates these links and places them in a position on the current page away from the clutter of the page as it normally exists. Our invention creates "fast links" which may be "deep links":

> **deep linking:** To link to a Web page that isn't the site's homepage. (Source: www.NetLingo.com)

In our case, our invention creates a "deep link" from the currently displayed page to a page which is N-hops (e.g. N levels of links away or N levels deep) from the current page. This link is then created and placed on the current page being viewed so that the user can jump to this page directly.

Horvitz' favorites are not the same as our N-hop deep fast links, and are not created responsive to detection of terms of interest in the page N-hops away from the current page, and therefore Applicant requests withdrawal of and allowance of Claims 4, 8 and 13.

For the foregoing reasons, and in view of the present amendment, Applicant requests withdrawal of all rejections and allowance of the claims because:

1. The Horvitz's patent, does not properly anticipate the claimed invention, as it fails to disclose all the claimed steps, elements or limitations. MPEP 2131 states:

> TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM *(capitalization emphasis found in original text)*

2. Horvitz's patent, does not properly anticipate the claimed invention, as it fails to disclose all the claimed steps, elements or limitations as set forth according to the applicant's terminology. Terminology and definitions of the cited reference(s) have been improperly employed to interpret the meaning and scope of the applicant's claims. MPEP 2173.01 states:

> **MPEP 2173.01Claim Terminology.** A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art.

Further, MPEP 608.01 states:

> The claims should be construed in light of the specification.

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